

Chang, Christina

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Education

Imperial College London, MSc in Sustainable Energy Futures, Expected 9/2013.

Princeton University, Bachelor of Arts in Chemistry, 2012.

- Certificates: Applications of Computing, Engineering Biology, and Materials Science
- Overall GPA: 3.94/4.00

Academic Background

Chemistry	Quantum Mech, Thermo, Organic, Inorganic, Organometallics, Kinetics, Materials
Computer Sci.	Artificial Intelligence, Computer Networks, Algorithms, Intro. Programming Systems
Physics & Bio.	Classical Mechanics, Integrated Science Curriculum 231/2, 233/4, 235, 236
Mathematics	Advanced Linear Algebra with Applications, Multivariable Calculus

Graduate Scholarship

2012 **Marshall Scholarship.**

- National scholarship awarded for academics, leadership, and cultural ambassadorship
- 2012 Currently attending Imperial College London (MSc in Sustainable Energy Futures)
- 2013 Will attend Cambridge University (MPhil in Inorganic Chemistry)

Undergraduate Scholarships

2011 **Barry M. Goldwater Scholarship.**

2011 **Gladys A. Emerson Scholarship**, Iota Sigma Pi, the National Honor Society for Women in Chemistry.

- \$2,000 scholarship recognizing one female chemistry junior nationwide

2011 **Frank and Sarah McKnight Prize in Chemistry.**

- Semifinalist, National Honor

Undergraduate Awards

2012 **Robert Thornton McKay Prize in Physical Chemistry**, *Princeton University.*

2012 **Spirit of Princeton Award**, *Princeton University.*

- Awarded to a select group of students for remarkable contributions to the University

2011 **William Foster Memorial Prize in Chemistry**, *Princeton University.*

- Given to one junior for academics, research, and leadership in Chemistry Department.

2009 **Manfred Pyka Prize in Physics**, *Princeton University.*

- Awarded for "excellence in coursework and promise in independent research."

2009 **Harold Shapiro Prize for Academic Excellence**, *Princeton University.*

- Awarded for outstanding academic achievement in the first year at Princeton

2008 **Academic Presidential Scholar**, *U.S. Department of Education*, Washington, D.C..

- Awarded to 141 seniors nationwide for academic, leadership, character excellence

Research Experience

Jun–Aug 2012 **Organic and Macromolecular Synthesis Lab**, *Molecular Foundry*, Lawrence Berkeley National Laboratory.

Dr. Brett Helms, http://foundry.lbl.gov/six/organic/staff-Brett_Helms.html

- Science Undergraduate Laboratory Internship (SULI), U.S. Department of Energy.

- Independent Research: Enhancing the IR-Electrochromic Performance of Nanocrystal Films Through Their Mesoscale Architecturing Using Block Copolymers

- Dec 2010– May 2012 **Bioinorganic Lab, Chemistry Department, Princeton University.**
 Dr. John Groves, <http://www.princeton.edu/~jtggroup/>
 - Undergraduate thesis: *Enhancing the Catalytic Generation of Chlorine Dioxide by Manganese Porphyrins: A Combined Experimental and Computational Approach*
- Summer 2010 **Inorganic and Materials Lab, School of Chemistry, University of Edinburgh, UK.**
 Dr. Neil Robertson, <http://homepages.ed.ac.uk/nr01/research.html>
 - Selected by Princeton International Internship Program and University of Edinburgh faculty
 - Independent Research: *Dye-Sensitized Solar Cells: Study, Application of Novel Cu(I) Dyes*
 - Contributed to public engagement initiative sponsored by the UK Energy Research Council
 - Podcast: http://www.thesolarspark.co.uk/?page=videos_solarcasts, Copper Dyes Link
- Jan '09–May '10 **Metabolomics Lab, Lewis-Sigler Institute, Princeton University.**
 Dr. Josh Rabinowitz, <http://www.princeton.edu/genomics/rabinowitz>
 - Independent work: *Statistical Analysis to Understand Yeast Metabolic Pathway Regulation*
- Summer 2009 **Functional Genomics Lab, Lewis-Sigler Institute, Princeton University.**
 Dr. Olga Troyanskaya, <http://reducio.princeton.edu/cm/node/13>
 - Independent work: *A Visualization Tool for Functional Genomics*, Project Webpage: <http://www.princeton.edu/cmchang/Bioinformatics.html>
 - Intern, Summer Programming Experiences, Princeton Computer Science Department
 - Webpage: <http://www.cs.princeton.edu/academics/ugradpgm/spe/summer09/>
- Summers '07–'08 **Research Science Institute, Center for Excellence in Education, Hosted by the Massachusetts Institute of Technology, Cambridge, MA.**
 - Counselor, Summer 2008; Participant, Summer 2007
 - Co-Winner "Rickoid of the Year" Most Outstanding Student, vote of peers, 2007
- 2008 Internship: Visual Attention Laboratory, Harvard Medical School
 Dr. Jeremy Wolfe, <http://search.bwh.harvard.edu/>
 - Independent Research: *Studies of Auditory Recognition Memory*
- 2007 Internship: Molecular Biology Laboratory, Boston University Medical Center
 Dr. Maria Kukuruzinska, <http://kukuruzinskalab.tripod.com/>
 - Independent Research: *Study of Cell-Cell Adhesion by Modulating the N-Glycosylation Level of E-Cadherin*

Science Leadership

- 2011–Present **Officer and Founding Member, P. U. Chemical Society, Princeton University.**
 - Re-instituted student chapter of the American Chemical Society to encourage and support interest in chemistry at the undergraduate level
- 2010–Present **President and Founder, Women in Science Colloquium, Princeton University.**
 - Founded Princeton organization to support female science, math, and engineering students
- 2008–Present **Coordinator, Integrated Science Curriculum (ISC) Mentorship, Princeton University.**
 - Organize social/academic events, arrange peer mentorships for ISC undergraduates
 - Filmed ISC documentary: www.princeton.edu/integratedscience/video-integrated-science

Languages

English **Native**
 Spanish **Fluent**

Service and Campus Leadership

- 2009–Present **Executive Staff ('09-'10), Tutor ('11), Community House, Princeton University.**
 - Helped develop an after-school mentoring program for local undeserved minority youth
- 2008–2009 **Founder and Performer, Princeton Percussion Ensemble, Princeton University.**
 - Founded a small ensemble to perform classical and world-drumming music
- 2009 **Spanish/English Interpreter, Princeton Medical Center (PMC), Princeton, NJ.**
 - Volunteered in the PMC clinic, interpreting between doctors and patients

Professional Memberships

- 2011–Present **Member**, American Chemical Society
2011–Present **Affiliate Member**, Royal Society of Chemistry
2011–Present **Member**, Iota Sigma Pi, the National Honor Society for Women in Chemistry

Skills and Interests

computing C, Java, MATLAB, \LaTeX hobbies piano performance, hiking, yoga